CDM
1331 17th Street, Suite 1050
Denver, Colorado 80202
tel: 303 295-1237
fax: 303 295-1895

January 29, 2003

Mr. John McGuiggin, PE
U.S. DOT/RSPA/Volpe Center/DTS-33
55 Broadway, Kendall Square
Cambridge, Massachusetts 02142

Subject: Contract DTRS57-99-D-00017, Task Order C0023
U.S. EPA Region 8, Asbestos Project - Emergency Response
Libby Sister Site Field Sampling Activities at
Former Vermiculite Intermountain Facility - SLC2
333 West 100 South, Salt Lake City, UT
Summary Report (Revision 1)

Dear Mr. McGuiggin:

CDM Federal Programs Corporation (CDM) is pleased to submit this summary report, with incorporated comments, for the field sampling activities that occurred October 14 through October 16, 2002 at the former Vermiculite Intermountain facility at 333 West 100 South, Salt Lake City, UT (SLC2). The scope of services performed by CDM is pursuant to the scope of work included in the task order/technical direction referenced above. This report presents background information, site description, site history, summary of field activities, and soil and air sampling results that took place at SLC2.

Background

The U.S. Department of Transportation's John A. Volpe National Transportation Systems Center (Volpe Center) has an Interagency Agreement (IAG) with the U.S. Environmental Protection Agency (EPA) Region 8 for environmental engineering and related support. Volpe Center support includes activities such as preparation of technical documents, development of program management plans, performance of environmental assessments/investigations, and assistance on remediation projects including emergency response.

Since November 1999, Volpe Center's Environmental Engineering Division (DTS-33) has been providing EPA Region 8 with immediate environmental engineering and site assessment support at Libby, Montana. As part of this work, the Volpe Center has provided support on investigations to monitor, sample and characterize asbestos-containing materials that may be present in the Libby community and in areas of former vermiculite mining and processing activities. EPA Region 8 has also expanded the investigations outside of the Libby Valley to determine other potentially contaminated properties that may have been impacted as a result of vermiculite processing and handling facilities. In support of these investigations, EPA Region 8 requested the Volpe Center and its contractor CDM to conduct field-sampling activities at areas

CDM

where vermiculite and/or amphibole asbestos may have been introduced during operations at SCL2. EPA Region 8 identified this location from U.S. Geological Survey (USGS) and Bureau of Mines publications, as a site that received ore or vermiculite from Libby, Montana.

The overall objectives of the field-sampling activities were to:

- Collect surface and subsurface soil samples in the area where the plant once existed to determine if Libby amphibole (LA) asbestos contamination is present.
- Collect ambient air samples during the sampling effort to determine whether or not there are airborne LA structures are present.

This report summarizes the field activities that took place during the October 14 through October 16, 2002 field investigation.

Site Description

SLC2 is located at 100 South 330 West just south of the Delta Center (Attachment 1, Figure 1). The site is situated adjacent to a power transfer station and an asphalt parking lot. Site detail of SLC2 is illustrated on Figure 2 (Attachment 1). The aerial photograph shown in the figure was taken in 2000 and obtained from Olympus Aerial Surveys, Inc. According to historical records, SLC2 was the original location for the Intermountain Insulation Company (formerly Vermiculite Intermountain) vermiculite processing facility. The former processing facility is now demolished and the site is currently owned in part by Pacific Corporation (PacifiCorp), a parent company of Utah Power and Light. The original plant boundaries probably encompassed adjacent properties including the asphalt parking lot and a storage business.

Site History

The exfoliation facility was formerly known as Vermiculite Intermountain. The company later changed its name to Intermountain Insulation (date unknown). Vermiculite-containing material was shipped to SLC2 via railcars. According to interviews with a previous employee, the material was scattered about the property from both leakage from the rail cars and from the transfer of the material from the railcars to the processing plant.

Historical research conducted by the EPA On-Scene Coordinator prior to the sampling activities indicated that Intermountain Insulation had operated at this site from about 1940 to 1984 before relocating their operations to another site at 733 West 800 South (SLC1). Intermountain Insulation, under license to W.R. Grace Construction Products Division, manufactured and distributed insulation, fireproofing, vermiculite soil conditioner, masonry fill and concrete plaster aggregate until the company went bankrupt in 1987.

Summary of Field Activities

The field activities were conducted on October 14 through October 16, 2002 by Frank Morris (CDM) and Melissa Petrak (PES). Prior to field activities, a signed access agreement from

PacifiCorp was obtained by the EPA. In addition, a utilities meet was conducted through the Utah Utilities Location Center (e.g. Blue Stakes, Utah One Call) to identify underground utility locations so they would not be disturbed during field activities. CDM received confirmation that all proposed sampling locations were clear of underground utility paths. However, because of the proximity of the site to the adjacent substation, a representative from PacifiCorp was onsite during the soil sampling event to ensure underground utilities associated with the substation were not disturbed.

Prior to performing any field activities, all field team members reviewed the site-specific health and safety plan. Field team members collecting soil samples were outfitted in level C personal protective equipment (PPE).

A total of 100 soil samples were collected from the SLC2 site. Specifically, soil samples were collected within a fenced in gravel lot directly east of the substation where the former processing facility once existed (Attachment 1, Figure 2). Soil samples were not collected from the area where the rail spur originally existed due to high voltage lines beneath the surface. One personal air and one ambient air sample was collected during the sampling effort. Four clearance air samples were collected the day after the sampling effort. Field sample data sheets (FSDS) were completed for all samples collected and are included in Attachment 2. Digital photographs of the site were recorded during the sampling effort and are included in Attachment 3.

Soil Sampling

The fenced in gravel lot east of the substation was segregated into 32 grids measuring approximately 25 by 25 feet (ft). Soil sample locations were positioned at the node of each grid. A discrete grab sample was collected at 0 to 2, 2 to 6, and 6 to 12-inch depth intervals from each sample location. In addition to the grid samples, three individual surface soil samples were collected from areas where gross visible vermiculite was observed. These areas included the lower level and upper level of the exposed building foundation of the former processing facility and the former railroad spur location (Attachment 1, Figure 3).

A tractor mounted direct-push technology (DPT) sampler was used to collect the soil samples. Once a soil core was extracted, depth intervals were measured for sampling purposes. All soil samples were collected using disposable trowels and placed into zip lock baggies. DPT equipment was decontaminated between samples using deionized water and Alconox soap. All soil samples were collected in accordance with the sampling and analysis plan for Libby Sister Sites (CDM 2001). Soil samples were sent under chain of custody to the CDM laboratory in Denver, Colorado for further processing (i.e., drying, splitting, etc.). Once the soil samples were processed, they were submitted for LA analysis by polarized light microscopy (PLM) (NIOSH 1994a). Table 1 in Attachment 4 indicates the index ID, grid location, sample depth, analytical result, and product observation for each soil sample collected.

While vermiculite was observed in only four surface soil samples collected, analytical results indicated that at least trace amounts (less than or equal to [≤] 1 percent [%]) of LA

contamination, extended throughout the entire fenced in area (Attachment 1, Figure 3). From the 35 surface soil samples collected, 30 samples had ≤ 1 % LA contamination while three samples had 2 to 3% LA. The surface soil sample with the highest LA concentration was collected from grid G34 with 7% LA. Only one sample collected was nondetect (G32).

LA contamination extended beyond the surface (2 inches) layer (Attachment 1, Figure 4). Thirty-two mid-range (2 to 6 inches) subsurface soil samples were collected. Twenty-seven samples had ≤ 1% LA contamination. Grids G04, G05, and G06 had 12%, 4%, and 2% LA, respectively. Twelve samples collected from this range had some type of visible vermiculite within the soil matrix. Only two samples were nondetect (G00 and G34).

Beyond 6 inches, fewer samples had detectable levels of LA asbestos (Attachment 1, Figure 5). A total of 32 subsurface (6 to 12 inches) soil samples were collected. Twenty-two samples had ≤ 1% LA contamination. Elevated LA contamination was found in samples collected from grids G00/G05 (2%), G03 (3%), G15 (12%), and G04 (15%). In grid G04, visible vermiculite was abundant throughout the entire core. In efforts to determine the lower extent of contamination in grid G04, the DPT core was extended past the lower sampling depth of 12 inches. Refusal was observed at 9.5 ft with visible vermiculite throughout the entire core. An individual soil sample was collected from the 36 to 42 inch depth interval and had the highest LA concentration of all soil samples collected at 18%. Five subsurface soil samples were nondetect.

Air Sampling

Air samples were collected during the sampling effort to determine LA exposure levels during sampling and whether or not airborne LA structures were present at the site. Due to time constraints, background air samples were not collected as directed by Joyce Ackerman (EPA) and Paul Kudarauskas (Volpe Center).

A personal and stationary air sample was collected during the one-day sampling effort. The personal air sample was collected from the breathing zone (BZ) of Frank Morris (sampler) and the stationary air sample was collected from the surface of the toolbox (DPT tractor). Both samples were submitted for LA asbestos by transmission electron microscopy (TEM) using Asbestos Hazard Emergency Response Act (AHERA) counting methods (NIOSH 1994b). Four LA structures were detected on the personal air sample while one LA structure was detected on the stationary air sample. Calculated sample results are presented in Attachment 4, Table 2.

Clearance samples were collected the following day to determine if any residual contamination remained in the air after the sampling effort (Attachment 1, Figure 2). Four stationary air samples (S005 through S008) were collected around the perimeter of the fenced in gravel lot. All four clearance samples were submitted for TEM/AHERA and were nondetect. Calculated sample results are presented in Attachment 4, Table 2.

Conclusions

- Thirty out of 35 surface (0 to 6 inch) soil samples collected from the fenced in gravel lot had

CDM

≤ 1% LA contamination. Four surface soil samples had greater than (>) 1% LA contamination with the highest value being 7%. Only one surface soil sample was nondetect. Visible vermiculite was observed in four surface samples.

- Twenty-seven out of 32 mid-range (2 to 6 inches) subsurface soil samples had ≤ 1% LA contamination. Three samples had > 1% LA contamination with the highest value being 12%. Visible vermiculite was observed in 12 mid-range samples.
- Twenty-two out of 32 subsurface (6 to 12 inches) soil samples had ≤ 1% LA contamination. Five samples had LA contamination > 1% with the highest value being 15%. An additional subsurface soil sample was collected from grid G04 at a depth of 36 to 42 inches had 18% LA contamination. Visible vermiculite was observed in 12 subsurface samples.
- LA structures were detected on the personal air sample (4 structures) and the stationary air sample (1 structure) during the sampling effort indicating some structures were released during sampling. Clearance samples collected the following day were nondetect indicating there was no residual contamination in the air after the sampling effort.

Attachments

A site location map is presented in Attachment 1 (Figure 1). A site detail map and soil sample analytical results per depth are presented in Figures 2 through 4 (Attachment 1). Clearance sample locations (Figure 2) are also included in Attachment 1. Completed FSDS are included in Attachment 2. Digital photographs recorded during the sampling effort are included in Attachment 3. Attachment 4 contains analytical results for the soil samples (Table 1) and air samples (Table 2) collected.

If you have any questions, please call me at (617) 452-6257.

Sincerely,

Frank K. Morris

CDM FEDERAL PROGRAMS CORPORATION

for Timothy B. Wall
Associate and Project Manager

Attachments

cc: Paul Kudarauskas (Volpe Center)
Joyce Ackerman (EPA Region 8)
Frank Morris (CDM Denver)

CDM

References:

CDM. 2001. Revision 1 Sampling and Analysis Plan for Libby Sister Sites (Asbestos Project) - Emergency Response and Preliminary Assessment Support, EPA Region 9. February.

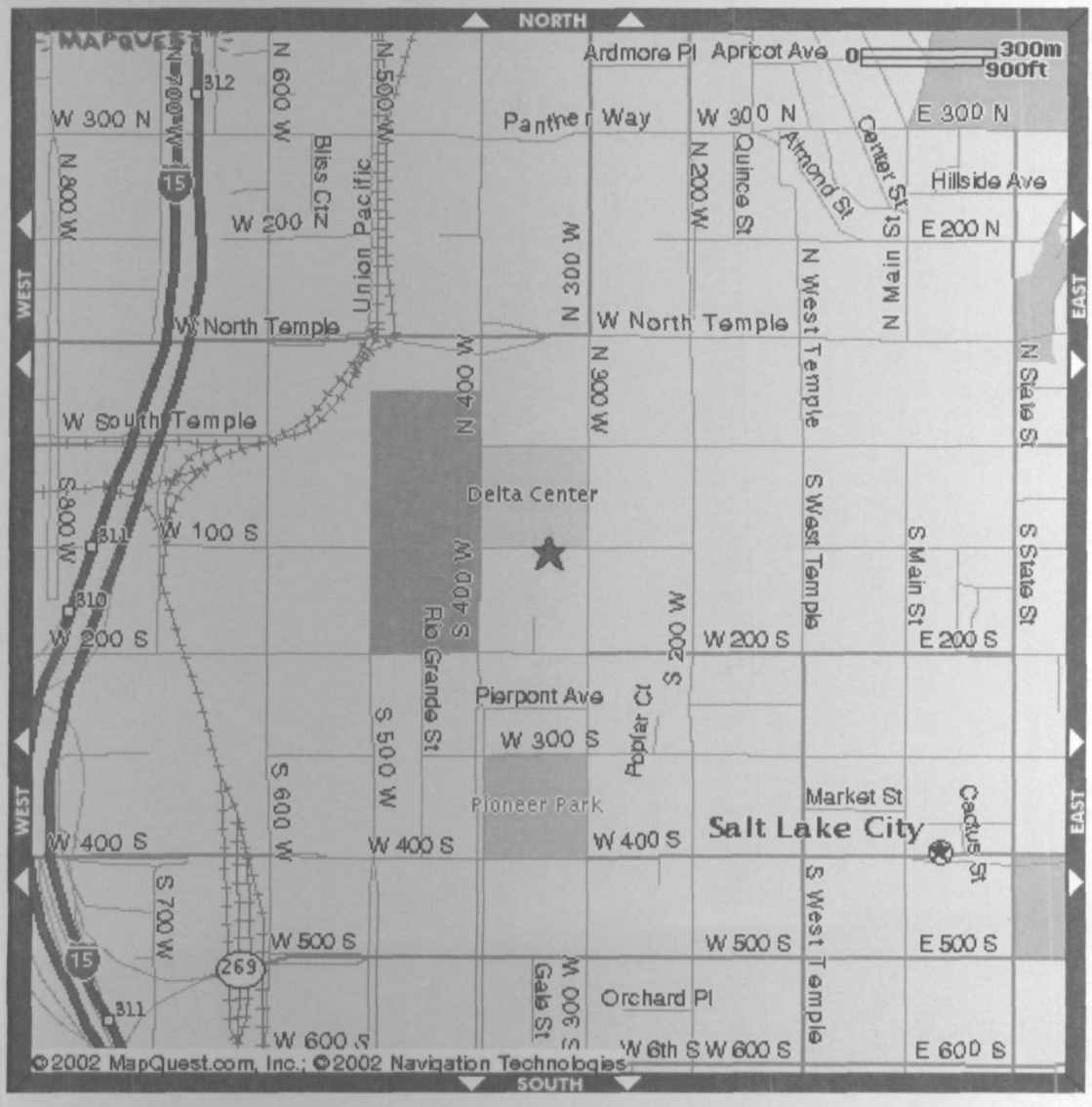
NIOSH. 1994a. Asbestos (bulk) by PLM, Method 9002. Issue 2. August.

NIOSH. 1994b. Asbestos by TEM, Method 7402. Issue 2. August.

Attachment 1

Figure Maps of SCL 2

Figure 1. Site location map of SLC2



Color Photo(s)

The following pages contain color that does not appear in the scanned images.

To view the actual images, please contact the Superfund Records Center at (303) 312-6473.

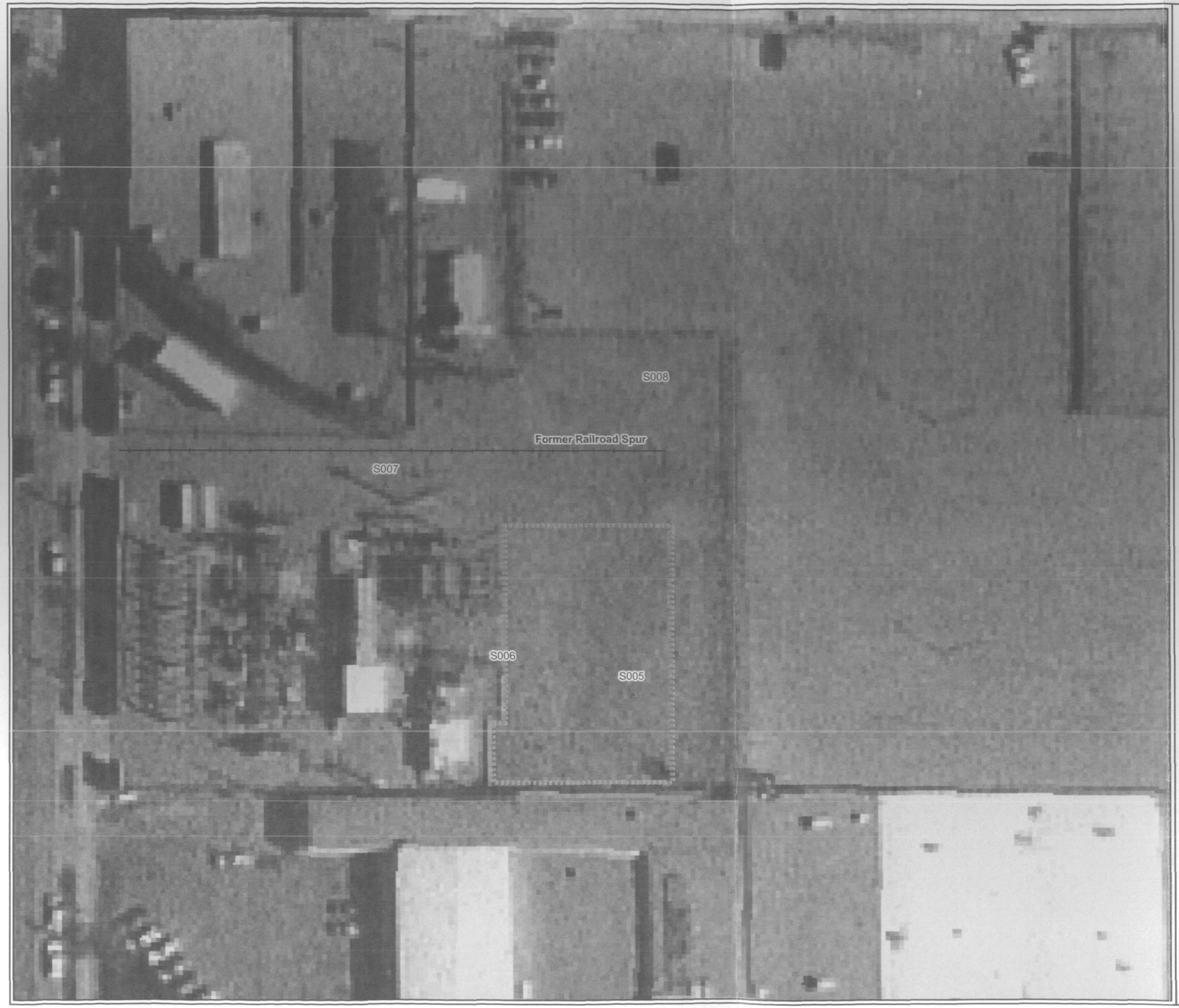


Figure 2

Site Detail Map

Libby Asbestos Project
Sisters of Libby
Salt Lake City, UT-SLC2

Legend

▲ Air Monitoring Station

Approximate Boundary of Former Processing Building

N
W E
S

Feet
0 25 50 100

CDM

Mapfilename: SLC2SiteDetail

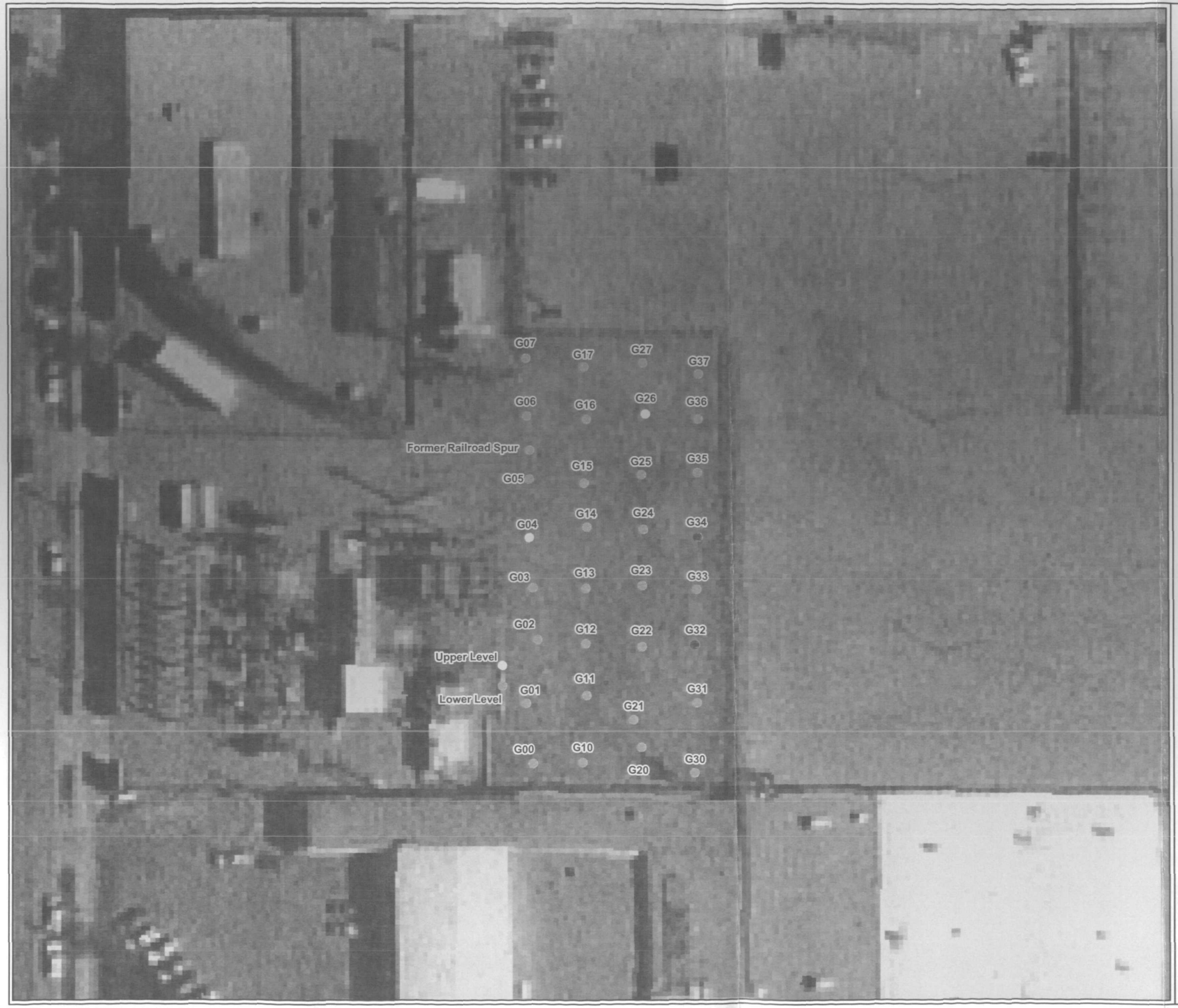


Figure 3

Surface Soil Sample Results
(0 to 2 Inches)

Libby Asbestos Project
Sisters of Libby
Salt Lake City, UT-SLC2

Legend
PLM Analysis
Tremolite-Actinolite %

- 0
- <=1
- 2 - 3
- 4
- >5

N
W E
S

Feet
0 25 50 100

CDM

Mapfilename: SLC2SampleResults0-2

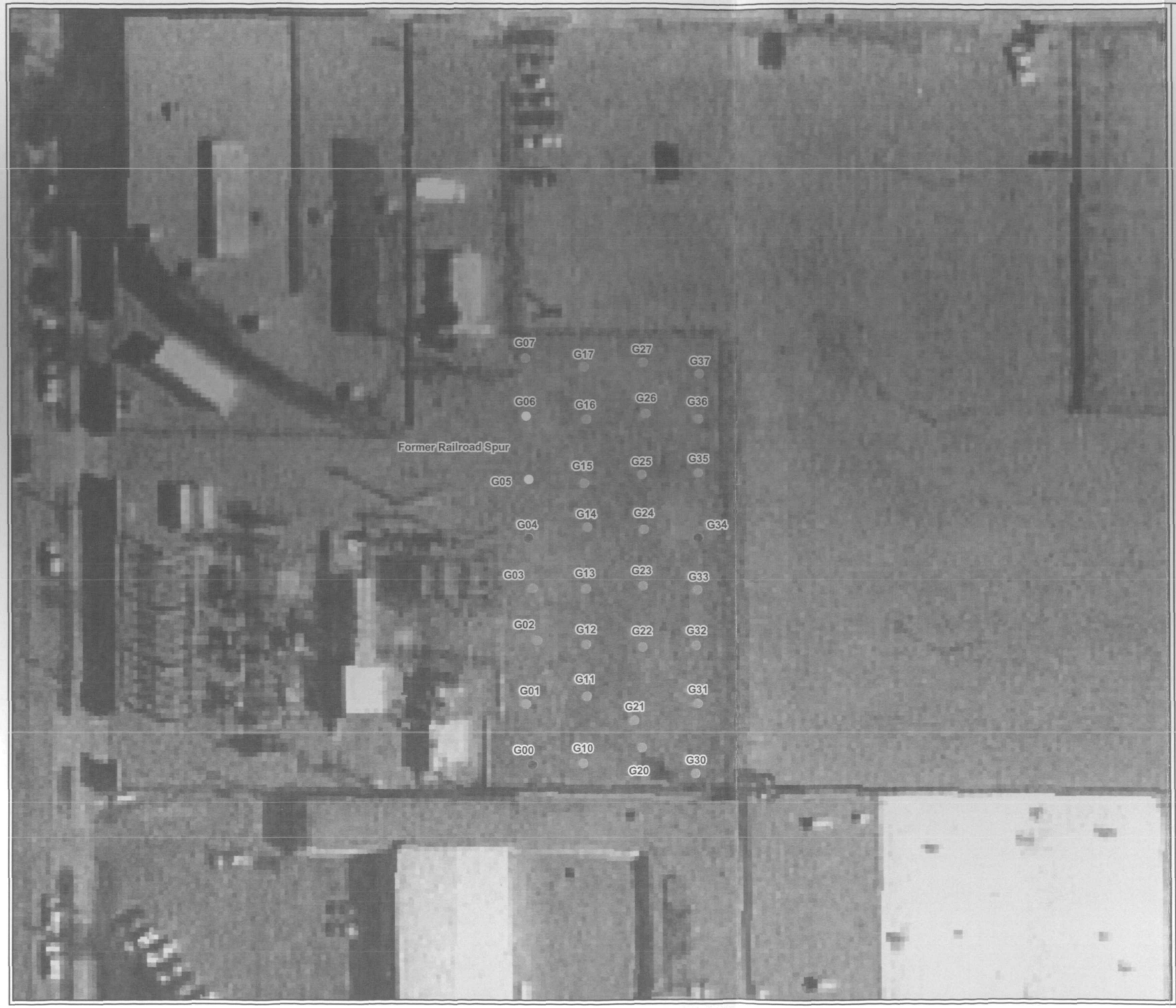


Figure 4

Subsurface Soil Sample Results
(2 to 6 Inches)

Libby Asbestos Project
Sisters of Libby
Salt Lake City, UT-SLC2

Legend
PLM Analysis
Tremolite-Actinolite %

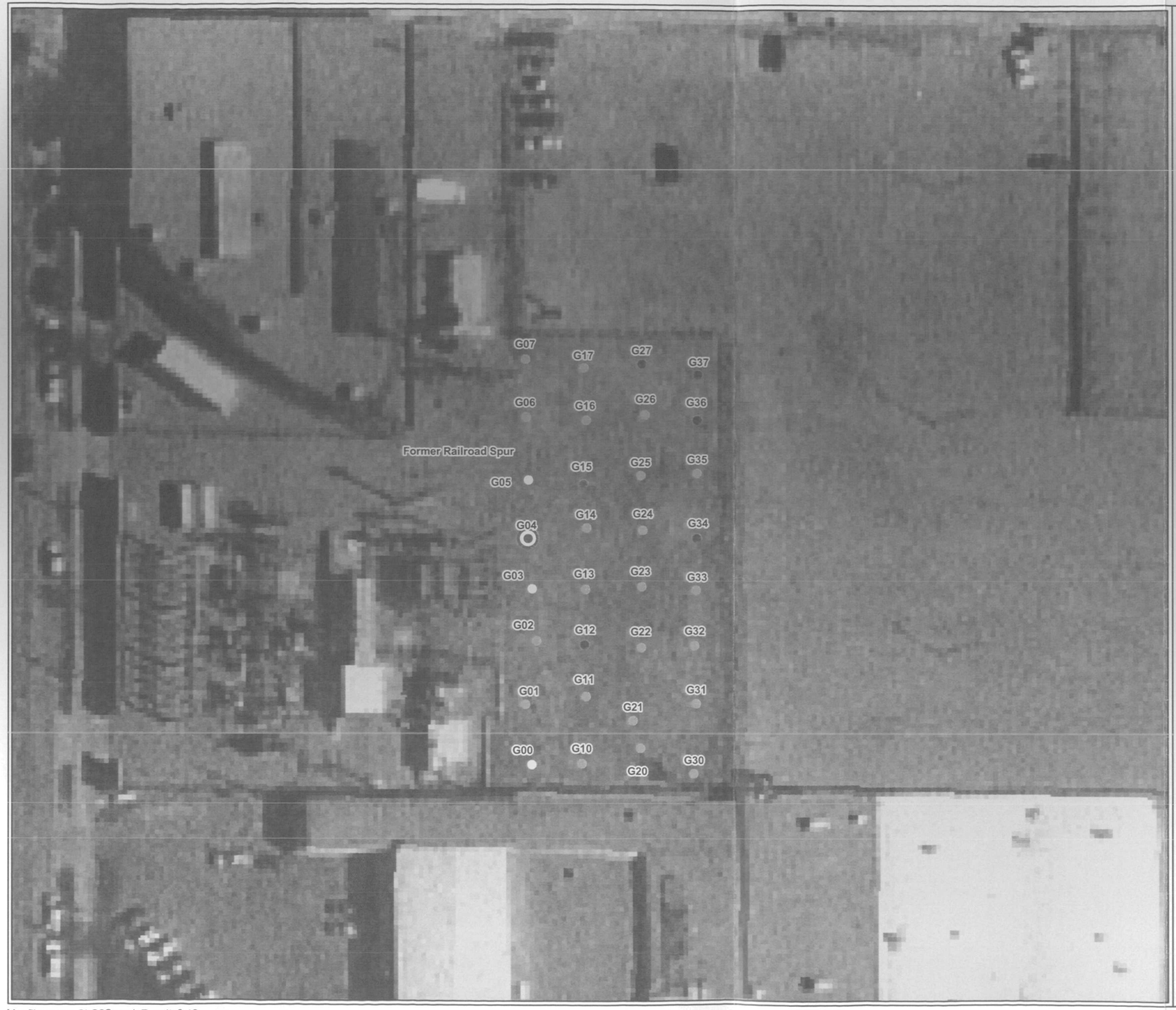
- 0
- <=1
- 2 - 3
- 4
- >5

N
W E
S

Feet
0 25 50 100

CDM

Mapfilename: SLC2SampleResults2-6



Mapfilename: SLC2SampleResults6-12

Figure 5

Subsurface Soil Sample Results
(6 to 12 Inches)
Libby Asbestos Project
Sisters of Libby
Salt Lake City, UT-SLC2

Legend
PLM Analysis
Tremolite-Actinolite %

- 0
- <=1
- 2 - 3
- 4
- >5

Subsurface Soil (36 - 42 Inch Depth)

- >5

Refusal at 9.5 feet, product full length
(1 foot offset south of G04)

N
W E
S

Feet
0 25 50 100

CDM

TARGET SHEET

EPA REGION VIII

SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOCUMENT NUMBER: 1005109

SITE NAME: VERMICULITE INTERMOUNTAIN

DOCUMENT DATE: 01/29/2003

DOCUMENT NOT SCANNED

Due to one of the following reasons:

- ☐ PHOTOGRAPHS
- ☐ 3-DIMENSIONAL
- ☐ OVERSIZED
- ☐ AUDIO/VISUAL
- ☐ PERMANENTLY BOUND DOCUMENTS
- ☐ POOR LEGIBILITY
- ☐ OTHER
- ☐ NOT AVAILABLE
- ☑ TYPES OF DOCUMENTS NOT TO BE SCANNED
  (Data Packages, Data Validation, Sampling Data, CBI, Chain of Custody)

DOCUMENT DESCRIPTION:

ATTACHMENT 2 Field Sample Data Sheets

Contact the Superfund Records Center to view available document.
(303) 312-6473

Attachment 3

Site Photographs

Color Photo(s)

The following pages contain color that does not appear in the scanned images.

To view the actual images, please contact the Superfund Records Center at (303) 312-6473.

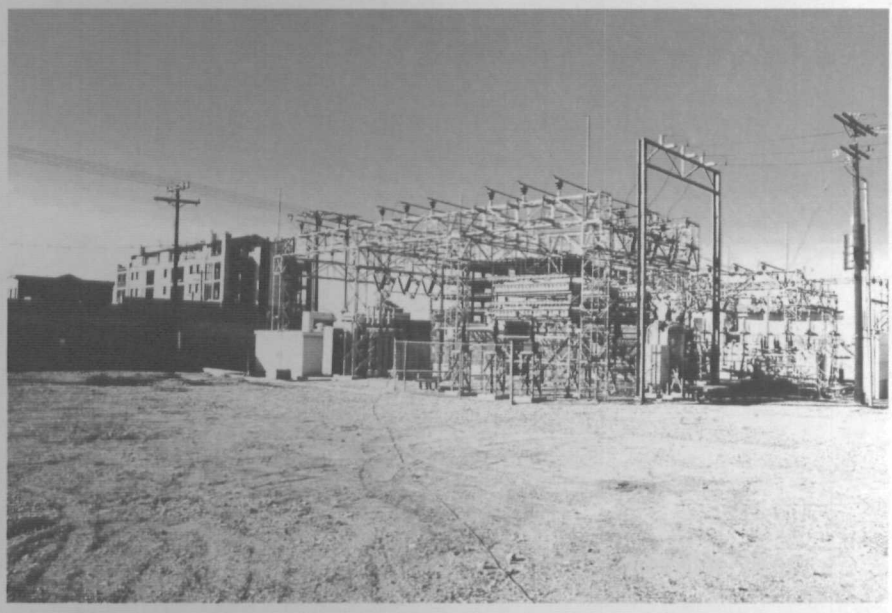


Photo 1. Southwest view of PacifiCorp electrical substation from air monitoring station S008.

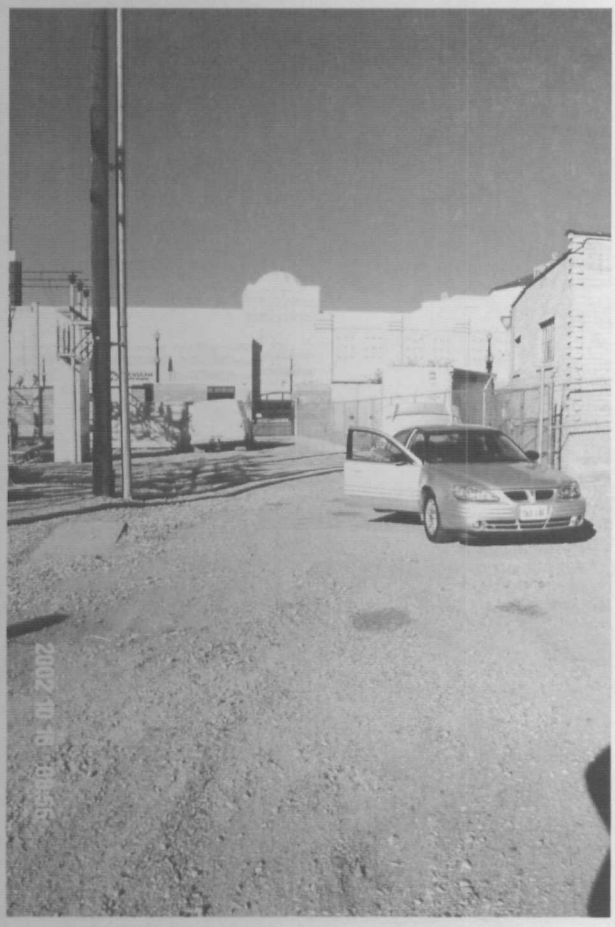


Photo 2. Photograph facing west showing the location of former railroad spur that supplied vermiculite to former processing plant.

Photo 3. Photograph facing south showing site of former processing plant (SLC2).

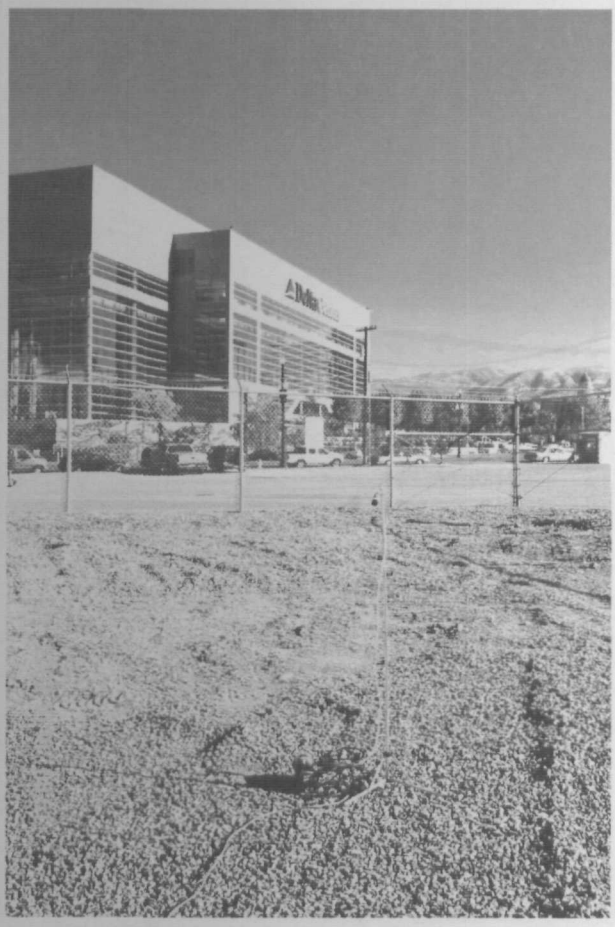


Photo 4. Photograph facing northeast showing air monitoring station S008 in foreground. Note Delta Center in background.

Photo 5. Photograph facing south showing remaining foundation from former processing plant. Note air monitoring station S006 on wall.

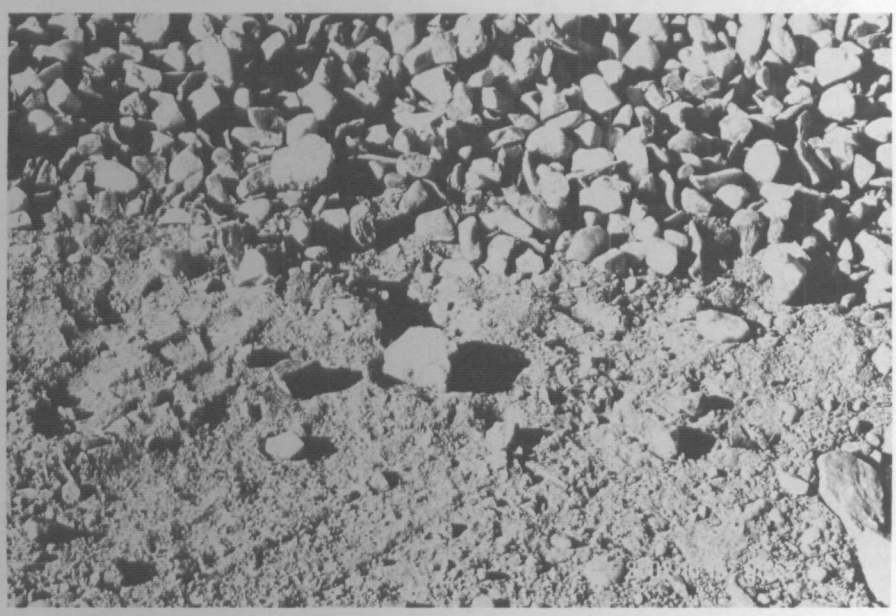


Photo 6. Close up view of surface material (visible vermiculite mixed with gravel) at SLC2.

Photo 7. Photograph facing southwest showing air monitoring station S006. Note vermiculite product in foreground.

Attachment 4

Analytical Data

Table 1. Soil samaple analytical data

Index ID	Grid Location	Depth (inches)	X Coordinate	Y Coordinate	PLM Result (% LA)	Visible Vermiculite
1R8-3001	G00	0-2	1529160.55024000000	7448075.41724000000	< 1	No
1R8-3002	G00	2-6	1529160.55024000000	7448075.41724000000	ND	Trace
1R8-3003	G00	6-12	1529160.55024000000	7448075.41724000000	2	Trace
1R8-3004	G01	0-2	1529157.68500000000	7448101.66152000000	< 1	Trace
1R8-3005	G01	2-6	1529157.68500000000	7448101.66152000000	< 1	Trace
1R8-3006	G01	6-12	1529157.68500000000	7448101.66152000000	< 1	Trace
1R8-3007	G02	0-2	1529162.61407000000	7448129.49092000000	< 1	Trace
1R8-3008	G02	2-6	1529162.61407000000	7448129.49092000000	< 1	Yes
1R8-3009	G02	6-12	1529162.61407000000	7448129.49092000000	< 1	Yes
1R8-3010	G03	0-2	1529160.74697000000	7448152.29260000000	< 1	No
1R8-3011	G03	2-6	1529160.74697000000	7448152.29260000000	< 1	No
1R8-3012	G03	6-12	1529160.74697000000	7448152.29260000000	3	Abundant to 4 ft
1R8-3013	G04	0-2	1529159.13335000000	7448174.41441000000	3	No
1R8-3014	G04	2-6	1529159.13335000000	7448174.41441000000	12	Abundant to 4 ft
1R8-3015	G04	6-12	1529159.13335000000	7448174.41441000000	15	Abundant to 4 ft
1R8-3100	G04	36-42	1529159.13335000000	7448174.41441000000	18	Visible to 9.5 ft
1R8-3016	G05	0-2	1529159.08742000000	7448199.97886000000	< 1	No
1R8-3017	G05	2-6	1529159.08742000000	7448199.97886000000	4	Abundant
1R8-3018	G05	6-12	1529159.08742000000	7448199.97886000000	2	No
1R8-3019	G06	0-2	1529158.09646000000	7448227.69226000000	< 1	No
1R8-3020	G06	2-6	1529158.09646000000	7448227.69226000000	2	No
1R8-3021	G06	6-12	1529158.09646000000	7448227.69226000000	< 1	No
1R8-3022	G07	0-2	1529157.81215000000	7448253.20613000000	< 1	No
1R8-3023	G07	2-6	1529157.81215000000	7448253.20613000000	< 1	No
1R8-3024	G07	6-12	1529157.81215000000	7448253.20613000000	< 1	No
1R8-3025	G17	0-2	1529183.18065000000	7448249.28638000000	< 1	No
1R8-3026	G17	2-6	1529183.18065000000	7448249.28638000000	< 1	No
1R8-3027	G17	6-12	1529183.18065000000	7448249.28638000000	< 1	Trace
1R8-3028	G16	0-2	1529184.20313000000	7448226.34281000000	< 1	No
1R8-3029	G16	2-6	1529184.20313000000	7448226.34281000000	< 1	No
1R8-3030	G16	6-12	1529184.20313000000	7448226.34281000000	< 1	No
1R8-3031	G15	0-2	1529183.19428000000	7448198.20745000000	< 1	Yes
1R8-3032	G15	2-6	1529183.19428000000	7448198.20745000000	< 1	Yes
1R8-3033	G15	6-12	1529183.19428000000	7448198.20745000000	12	Abundant to 3.5 ft
1R8-3034	G14	0-2	1529184.39506000000	7448179.01794000000	< 1	No
1R8-3035	G14	2-6	1529184.39506000000	7448179.01794000000	< 1	No
1R8-3036	G14	6-12	1529184.39506000000	7448179.01794000000	< 1	Trace
1R8-3037	G13	0-2	1529183.81120000000	7448152.02845000000	< 1	No
1R8-3038	G13	2-6	1529183.81120000000	7448152.02845000000	< 1	Trace
1R8-3039	G13	6-12	1529183.81120000000	7448152.02845000000	< 1	No

Table 1. Soil samaple analytical data

Index ID	Grid Location	Depth (inches)	X Coordinate	Y Coordinate	PLM Result (% LA)	Visible Vermiculite
1R8-3040	G12	0-2	1529183.76803000000	7448127.74895000000	< 1	No
1R8-3041	G12	2-6	1529183.76803000000	7448127.74895000000	< 1	No
1R8-3042	G12	6-12	1529183.76803000000	7448127.74895000000	ND	No
1R8-3043	G11	0-2	1529184.10749000000	7448104.99355000000	< 1	No
1R8-3044	G11	2-6	1529184.10749000000	7448104.99355000000	< 1	Trace
1R8-3045	G11	6-12	1529184.10749000000	7448104.99355000000	< 1	No
1R8-3046	G10	0-2	1529182.31359000000	7448075.84866000000	< 1	No
1R8-3047	G10	2-6	1529182.31359000000	7448075.84866000000	< 1	No
1R8-3048	G10	6-12	1529182.31359000000	7448075.84866000000	< 1	No
1R8-3049	G20	0-2	1529207.87188000000	7448082.59448000000	< 1	No
1R8-3050	G20	2-6	1529207.87188000000	7448082.59448000000	< 1	No
1R8-3051	G20	6-12	1529207.87188000000	7448082.59448000000	< 1	No
1R8-3052	G21	0-2	1529204.60104000000	7448094.54059000000	< 1	No
1R8-3053	G21	2-6	1529204.60104000000	7448094.54059000000	< 1	No
1R8-3054	G21	6-12	1529204.60104000000	7448094.54059000000	< 1	No
1R8-3055	G22	0-2	1529208.30691000000	7448126.47141000000	< 1	No
1R8-3056	G22	2-6	1529208.30691000000	7448126.47141000000	< 1	No
1R8-3057	G22	6-12	1529208.30691000000	7448126.47141000000	< 1	No
1R8-3058	G23	0-2	1529208.49647000000	7448153.17253000000	< 1	No
1R8-3059	G23	2-6	1529208.49647000000	7448153.17253000000	< 1	No
1R8-3060	G23	6-12	1529208.49647000000	7448153.17253000000	< 1	No
1R8-3061	G24	0-2	1529208.99842000000	7448178.02983000000	< 1	No
1R8-3062	G24	2-6	1529208.99842000000	7448178.02983000000	< 1	No
1R8-3063	G24	6-12	1529208.99842000000	7448178.02983000000	< 1	No
1R8-3064	G25	0-2	1529208.21533000000	7448201.98425000000	< 1	Yes
1R8-3065	G25	2-6	1529208.21533000000	7448201.98425000000	< 1	Yes
1R8-3066	G25	6-12	1529208.21533000000	7448201.98425000000	1	Abundant
1R8-3067	G26	0-2	1529209.95078000000	7448228.71332000000	2	No
1R8-3068	G26	2-6	1529209.95078000000	7448228.71332000000	1	No
1R8-3069	G26	6-12	1529209.95078000000	7448228.71332000000	< 1	No

Table 1. Soil samaple analytical data

Index ID	Grid Location	Depth (inches)	X Coordinate	Y Coordinate	PLM Result (% LA)	Visible Vermiculite
1R8-3070	G27	0-2	1529208.80332000000	7448251.13666000000	< 1	No
1R8-3071	G27	2-6	1529208.80332000000	7448251.13666000000	< 1	No
1R8-3072	G27	6-12	1529208.80332000000	7448251.13666000000	ND	No
1R8-3073	G37	0-2	1529233.07319000000	7448246.36924000000	< 1	No
1R8-3074	G37	2-6	1529233.07319000000	7448246.36924000000	< 1	No
1R8-3075	G37	6-12	1529233.07319000000	7448246.36924000000	ND	No
1R8-3076	G36	0-2	1529232.75949000000	7448226.50694000000	1	No
1R8-3077	G36	2-6	1529232.75949000000	7448226.50694000000	< 1	No
1R8-3078	G36	6-12	1529232.75949000000	7448226.50694000000	ND	No
1R8-3079	G35	0-2	1529232.53222000000	7448202.88689000000	< 1	No
1R8-3080	G35	2-6	1529232.53222000000	7448202.88689000000	< 1	Yes
1R8-3081	G35	6-12	1529232.53222000000	7448202.88689000000	< 1	Yes
1R8-3082	G34	0-2	1529232.66666000000	7448174.54218000000	7	No
1R8-3083	G34	2-6	1529232.66666000000	7448174.54218000000	ND	No
1R8-3084	G34	6-12	1529232.66666000000	7448174.54218000000	ND	No
1R8-3085	G33	0-2	1529232.09049000000	7448151.65707000000	< 1	No
1R8-3086	G33	2-6	1529232.09049000000	7448151.65707000000	< 1	Trace
1R8-3087	G33	6-12	1529232.09049000000	7448151.65707000000	< 1	Trace
1R8-3088	G32	0-2	1529231.37015000000	7448127.35525000000	ND	No
1R8-3089	G32	2-6	1529231.37015000000	7448127.35525000000	< 1	Trace
1R8-3090	G32	6-12	1529231.37015000000	7448127.35525000000	< 1	Trace
1R8-3091	G31	0-2	1529232.09060000000	7448102.05478000000	< 1	No
1R8-3092	G31	2-6	1529232.09060000000	7448102.05478000000	< 1	No
1R8-3093	G31	6-12	1529232.09060000000	7448102.05478000000	< 1	No
1R8-3094	G30	0-2	1529230.96560000000	7448071.52445000000	< 1	No
1R8-3095	G30	2-6	1529230.96560000000	7448071.52445000000	< 1	No
1R8-3096	G30	6-12	1529230.96560000000	7448071.52445000000	< 1	No
1R8-3097	Lower Level	0-2	1529147.24960000000	7448109.36813000000	< 1	No
1R8-3098	Upper Level	0-2	1529147.37447000000	7448118.23289000000	3	No
1R8-3099	Fmr RR Spur	0-2	1529159.42129000000	7448212.78079000000	< 1	No

All samples analyzed by PLM (NIOSH 9002) except for 1R8-3101 and 1R8-3102

PLM	polarized light microscopy
%	percent
LA	Libby Amphibole
<	less than
ND	nondetect

Table 2. Air samaple analytical data

Index ID	Air Sample Type Description	LA Fiber Count	Volume (L)	LA Concentration (S/cc)	X Coordinate	Y Coordinate
2R8-2011	Personal - Sampler	4	696	1.10E-02	NA	NA
2R8-2012	Stationary - tractor tool shelf	1	801	2.30E-03	NA	NA
2R8-2016	Blank	0	0	ND	NA	NA
2R8-2017	Blank	Archived	0	Archived	NA	NA
2R8-2018	Clearance - S005	0	2517	ND	1529207.40065000000	7448100.36656000000
2R8-2019	Clearance - S006	0	2510	ND	1529151.28822000000	7448108.36613000000
2R8-2020	Clearance - S007	0	2490	ND	1529101.32849000000	7448190.51882000000
2R8-2021	Clearance - S008	0	2468	ND	1529217.94436000000	7448230.55986000000

All samples analyzed by TEM/AHERA (NIOSH 7402)

LA	Libby Amphibole
L	liters
S/cc	structures per cubic centimeter
AHERA	Asbestos Hazard Emergency Response Act
TEM	transmission electron microscopy
NA	not available
ND	nondetect